CLAIMS

1. A water-borne urethane resin composition for forming a microporous layer, comprising (1) a water-borne urethane resin having a heat-sensitive coagulation temperature of 40 to 90°C and (2) an associated type thickener.

2. A water-borne urethane resin composition for forming a microporous layer as claimed in claim 1, wherein said water-borne urethane resin (1) is a urethane resin having a softening temperature of 120 to 240°C.

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3. A water-borne urethane resin composition for forming a microporous layer as claimed in claim 1 or 2, wherein said water-borne urethane resin (1) is a water-borne urethane resin having an average particle diameter of 0.1 to 5 μm.

4. A water-borne urethane resin composition for forming a microporous layer as claimed in any one of claims 1 to 3, wherein said water-borne urethane resin (1) is a water-borne urethane resin dispersed with a nonionic emulsifier having HLB of 10 to 18.

5. A water-borne urethane resin composition for forming a microporous layer as claimed in claim 4, wherein said nonionic

emulsifier has a structure represented by the following structural formula (I):

Ra-Ph- (I)

wherein R is a C_1 to C_9 alkyl, aryl or alkylaryl group; a represents an integer of 1 to 3; and Ph represents a phenyl ring residue.

Sub A2

6. A water-borne urethane resin composition for forming a microporous layer as claimed in any one of claims 1 to 5, wherein said associated type thickener (2) has a hydrophobic group located at at least one terminal and also has a urethane bond in a molecular chain.

7. A water-borne urethane resin composition for forming a microporous layer as claimed in any one of claims 1 to 6, wherein said associated type thickener (2) has a structure represented by the following structural formula (I):

Ra-Ph- (I)

wherein R is a C_1 to C_9 alkyl, aryl or alkylaryl group; a represents an integer of 1 to 3; and Ph represents a phenyl ring residue.

8. A water-borne urethane resin composition for forming a microporous layer as claimed in any one of claims 1 to 7, wherein said water-borne urethane resin (1) contains (A) a

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polyoxyalkylene glycol having at least 50% by weight or more of a repeating unit of ethylene oxide and/or (B) a one terminal polyoxyalkylene glycol having at least 50% by weight or more of a repeating unit of ethylene oxide.

9. A method of producing a fibrous sheet-like composite, which comprises:

(i) impregnating or coating a fibrous material substrate with

(ii) a water-borne resin composition comprising (1) a water-borne urethane resin having a heat-sensitive coagulation temperature of 40 to 90°C and (2) an associated type thickener, and

(iii) performing heat-sensitive coagulation with steam.

10. A method of producing a fibrous sheet-like composite as claimed in claim 9, wherein said water-borne urethane resin is a water-borne urethane resin dispersed with a nonionic emulsifier having HLB of 10 to 18.

SUB A3

11. A method of producing a fibrous sheet-like composite as claimed in claim 9 or 10, wherein said nonionic emulsifier has a structure represented by the following structural formula (I):

Ra-Ph- (I)

wherein R is a C_1 to C_9 alkyl, aryl or alkylaryl group; a represents an integer of 1 to 3; and Ph represents a phenyl ring residue.

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12. A method of producing a fibrous sheet-like composite as claimed in any one of claims 9 to 11, wherein said associated type thickener is an associated type thickener which has a hydrophobic group located at at least one terminal and also has a urethane bond in a molecular chain.

13. A method of producing a fibrous sheet-like composite as claimed in any one of claims 9 to 12, wherein said water-borne urethane resin is a water-borne urethane resin which contains (A) a polyoxyalkylene glycol having at least 50% by weight or more of a repeating unit of ethylene oxide and/or (B) a one terminal polyoxyalkylene glycol having at least 50% by weight or more of a repeating unit of ethylene oxide.

14. A method of producing a fibrous sheet-like composite as claimed in any one of claims 9 to 13, wherein steam temperature is from 70 to 120°C.

15. A method of producing a fibrous sheet-like composite as claimed in any one of claims 9 to 14, wherein steam treatment time is from 10 seconds to 20 minutes.

16. A method of producing a fibrous sheet-like composite as claimed in any one of claims 9 to 15, which further comprises drying at a temperature of 80 to 150°C after heat-sensitive coagulation with steam.

17. An artificial leather obtained by the method of any one of claims 9 to 16.